

CLAIMS

1. A method for performing charging in a telecommunications system, comprising:

storing at a subscriber information store subscription information including charging arrangement information indicative of the charging arrangement for a first communication terminal operating in the telecommunications system;

providing by means of packet data interface apparatus packet data communication services to the first terminal, the packet data interface apparatus being capable of interfacing between the first communication terminal and a packet-switched data link to another communications terminal;

generating by means of the packet data interface apparatus charging messages indicative of the usage of the packet data communication services by the first terminal;

transferring the charging messages to charging apparatus; and

performing by means of the charging apparatus a charging operation to attribute to a subscriber for the first communications terminal a charge for use of the communication services by the first terminal;

the method further including the steps of:

transferring the charging arrangement information to the packet data interface apparatus; and

storing at the packet data interface apparatus the charging arrangement information for the first communication terminal;

and wherein the step of generating charging messages comprises generating the said charging messages dependant on the charging arrangement information for the first communication terminal.

2. A method as claimed in claim 1, wherein the step of generating the charging messages comprises:

determining on the basis of the charging arrangement information for the first communication terminal stored at the packet data interface apparatus whether a communication with the first terminal is liable to charging; and

generating a charging message for the communication if the communication is liable to charging.

3. A method as claimed in claim 2, wherein it is determined that a communication is not liable for charging if charging arrangement information for the first communication terminal stored at the packet data interface apparatus indicates that the communication is subject to flat rate payment.

4. A method as claimed in claim 2 or 3, wherein it is determined that a communication is not liable for charging if charging arrangement information for the first communication terminal stored at the packet data interface apparatus indicates that the communication is subject to pre-payment.

5. A method as claimed in any of claims 2 to 4, wherein it is determined that a communication is not liable for charging if charging arrangement information for the first communication terminal stored at the packet data interface apparatus indicates that the communication is free of charge.

6. A method as claimed in any of claims 2 to 5, wherein it is determined that a communication is not liable for charging if a session itself indicates that the communication is free of charge.

7. A method as claimed in any preceding claim, wherein the charging message is indicative of the duration and/or type of the communication.

8. A method as claimed in any preceding claim, wherein the charging message is indicative of an amount of data transferred in the communication.

9. A method as claimed in any preceding claim, wherein the charging message is indicative of the identity of the first communication terminal.

10. A method as claimed in any preceding claim, wherein the charging message is a CDR ticket.

11. A method as claimed in any preceding claim, wherein the step of transferring the charging arrangement information to the packet data interface apparatus is performed during attachment of the first communication terminal to the telecommunications system.

12. A method as claimed in any preceding claim, wherein the subscriber information store is a home location register.

13. A method as claimed in claim 12, wherein the home location register stores information indicative of access point names available to the first terminal, and the method includes the step of accessing that information.

14. A method as claimed in any preceding claim, wherein the packet data interface apparatus is capable of interfacing between a packet radio connection with the first communication terminal and a packet-switched data link to the other communications terminal.

15. A method as claimed in claim 14, wherein the packet radio connection is a general packet radio service (GPRS) connection.

16. A method as claimed in any preceding claim, wherein the packet data interface apparatus comprises a serving GPRS support node (SGSN).

17. A method as claimed in claim 16, wherein the charging arrangement information for the first communication terminal is stored at the SGSN.

18. A method as claimed in any preceding claim, wherein the packet data interface apparatus comprises a global GPRS support node (GGSN).

19. A method as claimed in claim 18, wherein the charging arrangement information for the first communication terminal is stored at the GGSN.

20. A method as claimed in claim 18 or 19 as dependant directly or indirectly on claim 16, wherein the step of transferring the charging arrangement information to the packet data interface apparatus comprises transferring the charging arrangement information to the SGSN.

21. A method as claimed in claim 20, comprising the step of transferring the charging arrangement information from the SGSN to the GGSN.

22. A method as claimed in claim 21, wherein the said step of transferring the charging arrangement information from the SGSN to the GGSN is performed if it is determined that the communication is subject to hot billing.

23. A method as claimed in any of claims 18 to 22, wherein the step of determining whether a communication with the first terminal is liable to charging is performed by means of the SGSN and the GGSN.

24. A method as claimed in claim 23, wherein the said step of generation of the charging messages is performed by means of the GGSN and SGSN.

25. A method as claimed in any preceding claim, wherein the telecommunications system is a universal mobile telecommunications system (UMTS).

26. A telecommunications system, comprising:

 a subscriber information store storing subscription information including charging arrangement information indicative of the charging arrangement for a first communication terminal operating in the telecommunications system;

 packet data interface apparatus for providing packet data communication services to the first terminal, the packet data interface apparatus being capable of interfacing between the first communication terminal and a packet-switched data

link to another communications terminal, and generating charging messages indicative of the usage of the packet data communication services by the first terminal;

message transfer apparatus for transferring the charging messages to charging apparatus capable of performing a charging operation to attribute to a subscriber for the first communications terminal a charge for use of the communication services by the first terminal;

and wherein the packet data interface apparatus is adapted to receive and store the charging arrangement information for the first communication terminal and to generate the said charging messages dependant on the charging arrangement information for the first communication terminal.

27. A method for performing charging in a telecommunications system substantially as herein described with reference to figure 2 of the accompanying drawings.

28. A telecommunications system substantially as herein described with reference to figure 2 of the accompanying drawings.

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